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GN Docket No. 93-252

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**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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**FEDERAL COMMUNICATIONS COMMISSION
COMMUNICATIONS DIVISION**

Amendment of Part 90 of the)
Commission's Rules To Provide)
for the Use of the 220-222 MHz Band)
by the Private Land Mobile)
Radio Service)
Implementation of Sections 3(n) and 332)
of the Communications Act)
Regulatory Treatment of Mobile Services)

PR Docket No. 89-552

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GN Docket No. 93-252

To: The Commission

REPLY COMMENTS OF SEA INC.

SEA Inc. ("SEA"), by its undersigned counsel and pursuant to Section 1.415 of the Commission's Rules and Regulations, hereby files its reply comments in the above-captioned proceeding regarding the Commission's Third Notice of Proposed Rulemaking, FCC 95-381, released August 29, 1995 (4th NPRM), wherein the Commission proposed a new framework for the operation and licensing of systems in the 220-222 MHz band.

SEA has participated in developing 5 kHz narrowband technology for land mobile radio systems since 1981. SEA manufactures and markets narrowband linear modulation wireless equipment for voice and data operations in 5 kHz channels in the 220 MHz service. SEA has a full line of type-accepted narrowband mobile, base and portable radio products for the 220-222 MHz frequency band. SEA recently was granted type acceptance for its SEA700, the first 220 MHz narrowband handheld portable radio.

SEA again commends the Commission for proposing a thoughtful regulatory structure in light of the legislative changes that followed the early stages of the 220 MHz proceeding. SEA reiterates, however, that the Phase II band plan should be congruent

to the Phase I band plan. SEA continues to oppose strongly any permissible aggregation of contiguous spectrum to create wideband channels. SEA also points out that opening the 220 MHz band to paging interests will not serve the public interest.

I. SEA Supports a Phase II Band Plan Which is Congruent With The Phase I Band Plan

Several commenters observed, as did SEA, that the Commission's proposed channel plan presents some serious problems. PCIA noted that, with regard to the Phase I trunked local assignments, "incumbent licensees may need to 'negotiate' with multiple BEA/Regional licensees in order to relocate their systems"^{1/} PCIA also observed that "incumbent licensees will not be able to apply for a single BEA or Regional license for the frequencies on which they are already constructed"^{2/} and would need to bid on multiple blocks instead. In addition, PCIA expressed strong concerns regarding the technical problem of transmitter combining.^{3/} Contiguous channel spacing will require the use of loss -- inducing hybrid transmitter combiners for same-site use of narrowband channels. This matter was discussed at length during the original service rules proceeding for this band, where 150 kHz transmit channel spacing was selected to avoid such problems.^{4/} Indeed, because of this technical problem, the proposed assignment

^{1/} See comments of PCIA at 6.

^{2/} Id. at 7.

^{3/} Id.

^{4/} 150 kHz channel spacing permits the use of cavity-ferrite combining techniques which induce less power loss on the transmission system.

of contiguous channel blocks, combined with allowing wideband channels, would create a serious disincentive to the use of narrowband technology. Therefore, the decision to assign contiguous channels cannot be viewed as *technology neutral*.

The Commission's intention to assign contiguous channels to Phase II EA and Regional licensees conflicts with the current non-contiguous, 150 kHz spaced local channel assignments for Phase I licensees. The contiguous channel assignment approach would create another layer of serious and complicated logistical difficulties for the negotiation of spectrum use and resolution of interference issues between Phase I and Phase II licensees. For this reason, AMTA expressed concern, concluding, "AMTA recommends that the FCC **not** attempt to assign contiguous frequencies to EA and Regional authorizations."^{5/} The same thought was echoed by Securicor, which stated, "the proposed . . . channel assignment plan for Phase II licensing will . . . increase the difficulties (for) . . . both Phase I and Phase II licensees"^{6/} EF Johnson reached the same conclusion, stating, "the Commission should weigh the benefits of licensing contiguous spectrum against the utility of that spectrum to [Phase II] licensees who will be required to coordinate with many [Phase I] licensees in their service area."^{7/}

SEA agrees with these other commenters that the potential difficulties of the Commission's proposed Phase II bandplan are certainly significant enough to impact the utility and desirability of these assignments and, thus, their auction value.

^{5/} Comments of AMTA at 13.

^{6/} Comments of Securicor at 12.

^{7/} Comments of EF Johnson at 5.

In its comments, SEA described a channel plan which avoids the problems which would occur with the Commission's proposed channel plan.^{8/} SEA urges the Commission to adopt SEA's alternative plan.

II. SEA Strongly Opposes Aggregation of Contiguous Spectrum to Create Wideband Channels

SEA is not alone in opposing permitting the aggregation of contiguous spectrum to make wider bandwidth channels. In its comments, EF Johnson stated that permitting such aggregation would represent "Commission abandonment of the original intent in allocating the 220-222 MHz band for land mobile use: to foster narrowband technology," and that the Commission "should not take action which would discourage the use of narrowband trunked systems, which may be the most efficient use [of the spectrum]."^{9/} PCIA states, "[t]he [220 MHz] band was licensed for the specific purpose of developing AND implementing narrowband technologies,"^{10/} and "[t]o permit the combining of channels for wider-band technologies at this point threatens to strand millions of dollars of equipment design and development by equipment manufacturers who relied upon the

^{8/} Comments of SEA at 4.

^{9/} Comments of EF Johnson at 6.

^{10/} Comments of PCIA at 8.

Commission's representations."^{11/} Securicor agrees, stating that "the introduction of wideband technologies in the 220 Band...is not in the public interest" ^{12/}

It is important that the Commission understand how devastating removal of the five kHz restriction would be to the development of narrowband products and technologies. Permitting conventional wideband emission applications, particularly paging, would eat up spectrum rapidly, which would limit the spectrum available for narrowband applications. This would dilute the economies of scale necessary for the proper development of the narrowband market. In so doing, the Commission would forego years of enlightened public policy and would jeopardize the significant investments of manufacturers who relied on this agency's promises and commitments. SEA is hopeful that a decade of government and industry effort and cooperation will not be sacrificed so precipitously.

III. There is No Need to Permit Paging Interests to Overrun This Band

Permitting paging offerings in the 220 MHz band on a non-ancillary basis would be an extraordinary departure from the Commission's consistent public policy fostering the growth of new technologies in this band. Paging services are not new, and as the Commission has stated emphatically previously, there is no need to permit paging operations in this band; "there are other frequency bands available for paging operations." Report and Order, PR Docket No. 89-552, 6 FCC Rcd 2356, 2368 ¶ 89 (1991), citing Notice of Proposed Rule Making, PR Docket No. 89-552, 4 FCC Rcd 8593, ¶ 53 (1989).

^{11/} Id.

^{12/} Comments of Securicor at 15.

No shortage of spectrum for such offerings exists. In fact, the immense new PCS authorizations, both narrowband and broadband, may be utilized for provision of paging services.

Some commenters asserted that the marketplace, not the FCC, should decide which technologies best suit subscribers.^{13/} That assertion is a vast overgeneralization. It is true that the marketplace is a valuable index of current popular wireless applications, but to rely wholly upon the marketplace would greatly disserve the public. The Commission, in fulfilling its statutory mandates, must balance short-term convenience and expediency against the need to encourage the development of technologies that will aid in the long-term use and management of the valuable spectrum resource. For example, the public often does not realize the benefit of experimental technologies until they are refined, but the Commission in its wisdom continues to license many such technologies from which the public will benefit in years to come. For the band at hand, the Commission has repeatedly determined, as noted in SEA's earlier Comments in this proceeding, that there is a vital public interest in the development of this one small band for new spectrally efficient narrowband technologies. The higher potential for this band as originally envisioned by the Commission should not be squandered by allowing it to become just one more band for the provision of paging services.

^{13/} See Comments of AMTA at 18, Metricom at 3, PageMart at 4, PageNet at 12-13.


IV. Conclusion

For the foregoing reasons, and for the reasons set forth in its Comments, SEA urges the Commission to ensure that the Phase II bandplan is congruent to the Phase I bandplan, to retain the essential narrowband character of the 220 MHz band, and to maintain the existing restrictions on offerings of paging services in the band.

Respectfully submitted,

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Dated: October 12, 1995

CERTIFICATE OF SERVICE

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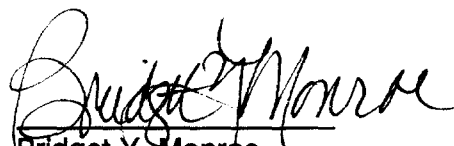
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